

CLAIMS

Having thus described the aforementioned invention, I claim:

1. A stackable chair, comprising:

a seat assembly including right and left seat members having spaced apart rear portions;

a right and left pair of front and rear leg members supporting said seat assembly and joined outboard of respective seat members to facilitate stacking on a like-configured seat assembly;

a back support including spaced apart right and left side support members extending downwardly to respective right and left lower ends curved forwardly to be positioned in registry with and spaced apart by right and left gap separations from respective seat member rear portions;

a rear support member interposed laterally inwardly from respective right and left back support lower ends;

a right and left front support member extended laterally inwardly from respective seat member rear portions, each front support member having side portions joined to respective seat member rear portions forward of respective right and left gap separations; and

a right and left spring member being separately positioned laterally inwardly of respective right and left gap separations, each spring member

19 having a rear portion disposed laterally inwardly of respective right and left
20 back support lower ends for coupling with said rear support member, each
21 spring member having a front portion disposed laterally inwardly of right
22 and left seat member rear portions for coupling with respective front
23 support members, each spring member being biased to return to a non-
24 flexed position;

25 whereby said back support is reclined when sufficient force is
26 applied against said back support to pivot said spring member rear
27 portions downwardly to a flexed position, said rear support member
28 and attached back support being returned to a substantially upright
29 position relative to said seat assembly by each spring member being
30 biased to return to the non-flexed position.

1 2. The stackable chair of Claim 1 further comprising a rear leg
2 cross-member having opposed ends joined between respective right
3 and left rear leg members proximally below respective right and left
4 back support lower ends, whereby said back support lower ends
5 having said rear support member interposed inwardly thereof and
6 said spring member rear portions coupled to said rear support
7 member are stopped from further downwards movement by said rear

leg cross-member thereby restraining said back support from further reclining movement.

3. The stackable chair of Claim 1 further comprising right and left pairs of fixation plates positioned in a covering relationship on upwardly faced front and rear portions of respective spring members, said right and left pairs of fixation plates including:

a front fixation plate connected in said covering relationship on each upwardly faced spring member front portion for fixedly joining each spring member front portion to respective front support members, each front fixation plate having a rear edge positionable proximal of respective right and left gap separations; and

a rear fixation plate connected in said covering relationship on each upwardly faced spring member rear portion for fixedly joining each spring member rear portion with respective opposed ends of said frame support cross-member, each rear fixation plate having a front edge positionable in abutting relationship adjacently distal of said rear edge of each front fixation plate and proximal of respective right and left gap separations;

whereby said front fixation plate rear edges periodically contact respective rear fixation plate front edges upon forward movement of said

18 back support when said spring members return to the non-flexed position
19 thereby denying excessive forward movement of said back support past a
20 substantially upright position.

1 4. The stackable chair of Claim 1 wherein said rear support member
2 including a frame cross-member having opposed flanged ends secured to
3 respective right and left back support lower ends, said frame cross-member
4 including a leading edge extending between opposed flanged ends, said
5 leading edge having an upwardly beveled configuration positioned for
6 repetitive contact with each spring member rear portion during repetitive
7 reclining movements of said back support, whereby said beveled leading
8 edge minimizes abrasion of respective spring member rear portions during
9 repetitive reclining movements of said back support.

1 5. The stackable chair of Claim 3 wherein said right and left front
2 support member including:
3 a base portion having a sufficient lateral width extended inwardly
4 from respective right and left seat members for releasably connecting one
5 front portion of either of said right and left spring members;
6 said side portion of each front support member including a flanged

7 side member extended perpendicular to said base portion and having a side
8 surface of sufficient width to be rigidly joined to respective inboard surfaces
9 of said right and left seat members; and

10 a rearward edge extended inwardly from respective right and left seat
11 members, said rearward edge having an upwardly beveled configuration
12 positioned to be repetitively contacted by respective spring member front
13 portions, whereby said beveled configuration minimizes abrasion of
14 respective spring member front portions during repetitive reclining
15 movements of said back support.

1 6. The stackable chair of Claim 1 wherein said right and left pairs of leg
2 members including a right and left side reinforcement member extended
3 between each front and rear leg member, each respective side reinforcement
4 member is aligned parallel with and spaced apart below respective right and
5 left seat members.

1 7. The stackable chair of Claim 1, further comprising:

2 a seat cushion removably connected to be supported on said seat
3 assembly, said seat cushion having a sufficient width to extend between
4 said right and left seat members and having a sufficient length to cover said

5 back support lower ends positioned in registry with and spaced apart by
6 said right and left gap separations from respective seat member rear
7 portions, whereby said gap separations are covered by said seat cushion
8 thereby negating access from above said seat cushion during repetitive
9 reclining movements of said back support relative to said seat assembly;
10 and

11 a back support cushion removably connected to be supported by said
12 back support, said back support cushion including a sufficient width to
13 extend between said right and left side support members and having a
14 sufficient length for support of a seated occupant during repetitive reclining
15 movements of said back support relative to said seat assembly.

1 8. The stackable chair of Claim 7, further comprising a right and left
2 cover guard removably positioned underneath each respective gap
3 separation and in covering relationship of each respective gap separation,
4 each cover guard is composed of pliable material readily bendable during
5 repetitive movement of said spring members between the non-flexed position
6 to the flexed position, whereby said cover guards minimize finger intrusion
7 into either gap separation during repetitive reclining movements of said
8 back support relative to said seat assembly.

1 9. The stackable chair of Claim 1 wherein said right and left spring
2 members are substantially planar along a length dimension.

1 10. A stackable chair, comprising:

2 a seat assembly including right and left seat members having spaced
3 apart rear portions, said right and left seat members being disposed in a
4 substantially horizontal plane for placement of a removable seat cushion
5 thereon;

6 a right and left pair of front and rear leg members supporting said
7 seat assembly and joined outboard of respective seat members to facilitate
8 stacking on a like-configured seat assembly;

9 a back support including spaced apart right and left frame members
10 extending to respective right and left frame lower ends curved forwardly to
11 be positioned in registry with and spaced apart by a gap separation from
12 said rear portions of said right and left seat members;

13 a rear support member having flanged ends positioned to extend
14 inwardly between respective right and left frame lower ends;

15 a right and left spring member positioned to extend laterally inwardly
16 of respective right and left gap separations, each spring member having a
17 rear portion disposed laterally inwardly of respective right and left frame

18 lower ends for fixed coupling with respective flanged ends of said rear
19 support member, each spring member having a front portion extended to be
20 disposed laterally inwardly of each rear portion of said right and left seat
21 members, each spring member is biased to a non-flexed position; and
22 a right and left front support member extended laterally inwardly a
23 sufficient width from respective right and left seat members for coupling
24 thereon of said front portion of respective right and left spring members;
25 whereby upon said back support being moved to a reclined
26 position, said right and left spring members are flexed to a flexed
27 position with respective spring member rear portions moved
28 downwardly without either spring member contacting the seat
29 cushion positioned on the seat assembly.

1 11. The stackable chair of Claim 10 further comprising right and left pairs
2 of fixation plates positioned in a covering relationship on upwardly faced
3 front and rear portions of respective spring members, said right and left
4 pairs of fixation plates including:

5 a front fixation plate connected in said covering relationship on each
6 upwardly faced spring member front portion for fixedly joining each spring
7 member front portion to respective front support members, each front plate

8 having a rear edge positionable proximally above respective right and left
9 gap separations; and
10 a rear fixation plate connected in said covering relationship on each
11 upwardly faced spring member rear portion for fixedly joining each spring
12 member rear portion with respective opposed ends of said frame support
13 cross-member, each rear fixation plate having a front edge positionable in
14 abutting relationship adjacently distal of said rear edge of each front fixation
15 plate and proximally above respective right and left gap separations;
16 whereby said front fixation plate rear edges periodically contact
17 respective rear fixation plate front edges upon forward movement of said
18 back support when each spring member returns to the non-flexed position
19 thereby denying excessive forward movement of said back support past the
20 substantially upright position.

1 12. The stackable chair of Claim 10, further comprising a rear leg
2 cross-member having opposed ends joined between respective right
3 and left rear leg members proximally below respective right and left
4 frame lower ends, whereby said frame lower ends are stopped from
5 further downward movement by said rear leg cross-member thereby
6 restraining said back support from further reclining movement.

1 13. The stackable chair of Claim 10 wherein said right and left
2 spring members having generally planar upper and lower surfaces
3 and are composed of material biased to rebound to said non-flexed
4 position, whereby said back support is returned to a substantially
5 upright position upon removal of induced reclining movement of the
6 back support.

1 14. The stackable chair of Claim 10 wherein said rear support member
2 including a leading edge extending between opposed ends and having an
3 upwardly beveled configuration positioned to be repetitively contacted by
4 respective lower surfaces of each spring member rear portion with resulting
5 reduction in wear of each spring member rear portion during repetitive
6 contact against said bevel by downwardly movements of each spring
7 member rear portions forced by reclining movements of said back support.

1 15. The stackable chair of Claim 11 wherein said right and left front
2 support members including:
3 a base portion having a sufficient lateral width extended inwardly
4 from respective right and left seat members for releasably connecting one
5 front portion of either of said right and left spring members;

6 a flanged side member extended perpendicular to said base portion
7 and having a side surface of sufficient width to be rigidly joined to respective
8 inboard surfaces of said right and left seat members; and

9 a rearward edge extended inwardly from respective right and left seat
10 members, said rearward edge having an upwardly beveled configuration
11 positioned to be repetitively contacted by respective lower surfaces of said
12 spring member front portion, whereby said beveled configuration reduces
13 wear of each spring member front portion during repetitive contact against
14 said beveled rearward edge by downwardly movements of each spring
15 member front portion resulting from reclining of said back support.

1 16. The stackable chair of Claim 10 wherein said right and left pairs of leg
2 members including a right and left side reinforcement member extended
3 between each front and rear leg member, each respective side reinforcement
4 member is aligned parallel with and spaced apart below said upper leg
5 segment of each right and left leg member unit.

1 17. The stackable chair of Claim 16 wherein said right and left pair of
2 front and rear leg members including:

3 a right side lateral brace extended between respective right front and

4 right rear leg members, said right side lateral brace disposed generally
5 parallel below said right upper leg segment; and
6 a left side lateral brace extended between respective left front and left
7 rear leg members, said left side lateral brace disposed generally parallel
8 below said left upper leg segment.

1 18. A stackable chair comprising:
2 a seat assembly including a front seat member joined to right and left
3 seat members having spaced apart rear portions, said seat assembly
4 disposed in a substantially horizontal plane to receive a seat cushion
5 thereon;
6 a pair of right and left inverted U-shaped leg members supporting said
7 seat assembly, each pair of leg members having right and left upper leg
8 segments joined outboard of respective right and left seat members;
9 a back support frame including spaced apart right and left frame
10 members upstanding relative to the pair of seat support frame members,
11 each right and left frame member having a lower end curved forwardly and
12 disposed in registry behind said right and left seat members rear portions,
13 said lower ends of said frame members being positioned in spaced apart
14 alignment across respective right and left gap separations from respective

15 right and left seat members;

16 a right and left spring member positioned for bridged extension
17 laterally inwardly between said right and left frame member lower ends and
18 said rear portions of said right and left seat members, each spring member
19 having a front end disposed laterally inwardly of respective rear portions of
20 said seat members, and having a rear end disposed laterally inwardly of
21 respective frame member lower ends;

22 a right and left front support member extended laterally inwardly from
23 respective right and left seat members, each front support member is
24 disposed proximally forward of respective right and left gap separations,
25 each front support member having an adequate lateral width for fixed
26 coupling thereon of said front portion of respective right and left spring
27 members;

28 a frame rear cross-member having opposed ends interposed inwardly
29 between respective right and left frame member lower ends, said opposed
30 ends of said rear cross-member having an upper surface for fixed coupling
31 thereon of said rear portion of respective right and left spring members,
32 whereby each right and left spring members are laterally inwardly joined
33 between respective right and left front support members and said upper
34 surface of said frame rear cross-member, thereby each right and left spring

35 member is maintained in bridging relationship laterally inwardly of
36 respective right and left gap separations; and
37 a rear restraint bar connected between respective right and left rear
38 leg members and positioned proximally beneath said frame member lower
39 ends, whereby when said back support frame is reclined with resulting
40 flexing downwardly of said spring member rear portion, said frame member
41 lower ends are contacted against said rear restraint bar whereby reclining
42 movement is limited for said back support frame.

1 19. The stackable chair of Claim 18 wherein said right and left
2 spring members having generally planar upper and lower surfaces
3 and having a depth between said upper and lower surfaces being
4 composed of material biased to rebound to a non-flexed position for
5 said upper and lower surfaces whereby said back support frame is
6 returned to a substantially upright position after each reclining
7 movement of said back support frame.

1 20. The stackable chair of Claim 18 further comprising right and left pairs
2 of fixation plates positioned in a covering relationship on upwardly faced
3 front and rear portions of respective spring members, said right and left

4 pairs of fixation plates including:

5 a front fixation plate connected in said covering relationship on each
6 upwardly faced spring member front portion for fixedly joining each spring
7 member front portion to respective front support members, each front
8 fixation plate having a rear edge positionable proximally above respective
9 right and left gap separations; and

10 a rear fixation plate connected in said covering relationship on each
11 upwardly faced spring member rear portion for fixedly joining each spring
12 member rear portion with respective opposed ends of said frame rear cross-
13 member, each rear fixation plate having a front edge positionable in
14 abutting relationship adjacently distal of said rear edge of each front fixation
15 plate on said upper surface of each spring member positioned adjacent
16 respective right and left gap separations;

17 whereby said front fixation plate rear edges periodically contact
18 respective paired rear fixation plate front edges upon forward movement of
19 said back support frame when each spring member returns to said non-
20 flexed orientation thereby denying excessive forward movement of said back
21 support frame past a substantially upright position.

1 21. The stackable chair of Claim 18 wherein said frame rear cross-

2 member including a leading edge extending between opposed ends and
3 having an upwardly beveled configuration positioned to be repetitively
4 contacted by respective lower surfaces of each spring member rear portion
5 with resulting reduction in wear of each spring member rear portion during
6 repetitive contact against said bevel by downwardly movements of each
7 spring member rear portions forced by reclining movements of said back
8 support frame.

1 22. The stackable chair of Claim 20 wherein said right and left front
2 support members including:

3 a base portion having a sufficient lateral width extended inwardly
4 from respective right and left seat members for releasably connecting
5 thereon of respective front portions of respective right and left spring
6 members;

7 a flanged side member extended perpendicular to said base portion
8 and having a side surface of sufficient width to be rigidly joined to respective
9 inboard surfaces of said right and left seat members; and

10 a rearward edge extended inwardly from respective right and left seat
11 members, said rearward edge having an upwardly beveled configuration
12 positioned to be repetitively contacted by respective lower surfaces of each

13 spring member front portion with resulting reduction in wear of each spring
14 member front portion during repetitive contact against said beveled
15 rearward edge by downwardly movements of each spring member front
16 portions resulting from reclining movements of said back support frame.

1 23. The stackable chair of Claim 18 wherein said right and left pair of
2 front and rear leg members including:

3 a right side lateral brace extended between respective right front and
4 right rear leg members, said right side lateral brace disposed generally
5 parallel below said right upper leg segment; and

6 a left side lateral brace extended between respective left front and left
7 rear leg members, said left side lateral brace disposed generally parallel
8 below said left upper leg segment.